Q1: Earth and Space Science - a new subject that aligns with Level 7 and 8 of the Planet Earth and Beyond strand and the Nature of Science strand of the Science part of the NZC.

Q2: The Earth and Space Science (ESS) Level 3 Achievement Standards align with Level 8 of the Planet Earth and Beyond and the Nature of Science strands of the Science part of the NZC.

An ESS scholarship would be assessed in both English and te reo Māori.

Government goals: The following is modified from the Gluckman report - Looking Ahead: Science Education for the Twenty-First Century"

The nature of science has changed in that instead of dealing with simple systems, science is now dealing with complex issues such as interrelated physical and biological changes in the environment. EES standards will assess courses that will prepare students for entry into Geology, Environmental Studies and Marine Science courses and Astronomy courses. These courses will also cover the two distinct objectives of science education at secondary school –that of pre-professional education for careers and the need for all students to have a clear understanding of the complex world of science that they will confront as citizens.

A scientifically literate population is essential for informed public debate on issues currently facing New Zealand such as the wise use of energy, resources and care for the environment as a whole.

Q3: As this is a new subject being assessed at L2 NCEA for the first time I cannot comment on the numbers of candidates performing at Excellence at Level 3. However, anecdotally, there are a good number of courses being taught that will be assessed by some or all ESS L2 standards. In my school there are 50 students doing ESS L2 and I would expect 5-10% of them to gain a good proportion of excellence credits.

There are experienced writers and markers who have experience in Science who have also been involved in the development of ESS and so could assess ESS. There are enthusiastic young teachers who could be mentored.

ESS courses will prepare students for entry into Earth and Marine Science courses and Astronomy courses.

Because ESS is based around understanding the interaction of the Earth Systems with Astronomical cycles high level abilities will be required to answer questions requiring a thorough understanding these. It will be possible to use in scholarship paper a wide range of contexts so that true scholarship ability is assessed over the years without repetition.

Q4: Because this is a new subject candidate numbers cannot be predicted. However, from my personal experience of giving well attended PD around the country on ESS I would hope that initially there would be as many ESS candidates as there are currently Science ones.

The proposed mode could be an exam similar to the present Science one which is manageable and I assume would be run with a similar cost.